UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,971	07/13/2006	Rudiger Kolblin	016906-0530	6190

22428 7590 03/30/2009

FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER	
DUKE, EMMANUEL E	

ART UNIT	PAPER NUMBER
3744	

MAIL DATE	DELIVERY MODE
03/30/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/585,971	KOLBLIN ET AL.	
	Examiner	Art Unit	
	EMMANUEL DUKE	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/05/2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection over *Kull et al. 219*, in view of *Fuerschbach et al. '578*.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-12, *are rejected under 35 U.S.C. 103(a) as being unpatentable over Kull et al. (**U.S. Patent No. 5,931,219**), hereinafter referred to as Kull et al. '219, in view of Fuerschbach et al. (**U.S. Patent No. 4,872,578**), hereinafter referred to as Fuerschbach et al. '578.*

Regarding Claim 1, Kull et al. '219 disclose a heat exchanger **(1)**, having a plate-type design **(Col 2, line 51)**, comprising: at least two adjacent heat exchanger plates **(Col 2, lines 51-52)** defining an interspace **(Col 1, lines 39-40, wherein flow duct is an interspce)** through which a heat exchanger medium **(Col 4, lines 41-45)**: or a second medium: to be cooled or to be heated flows **(Col 4, lines 45-47)**: wherein the at least two adjacent heat exchanger plates are arranged in a stack **(Col 1, lines 65-67)**, however, he does not explicitly disclose a base plate, wherein the base plate is provided at one end of the stack, wherein the base plate is in at least substantially flat contact with an adjacent outermost heat exchanger plate of the heat exchanger,

wherein the base plate comprises a depression with a contour having a shape corresponding to one of the heat exchanger. Fuerschbach et al. '578 teaches: a base plate **(46)**, wherein the base plate is provided at one end of the stack **(Fig. 1: Col 4, lines 29-30, wherein at the bottom is one end of the stack)**, wherein the base plate is in at least substantially flat contact with an adjacent outermost heat exchanger plate **(as shown by Fig. 1)** of the heat exchanger, wherein the base plate comprises a depression **(48)** with a contour having a shape **(Fig. 1: wherein 48 is shown with a contour and a shape corresponding to the shape 18 of 12)** corresponding to one of the heat exchanger.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Kull et al. '219 heat exchanger to include the use of a base plate with substantially flat and a depression as taught by Fuerschbach et al. '578 in order to provide an attachment surface for the heat exchanger to an engine block.

Regarding Claim 2, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the heat exchanger as claimed in claim 1, Kull et al. '219 disclose wherein flanks **(7')** of the outermost heat exchanger plate bear, at least in a lower region **(8')** of the flanks, against flanks of the contour of the base plate, Fuerschbach et al. '578 further disclose the limitation wherein the contour formed by the depression is recessed in the base plate **(Fig. 1: label 48, wherein the depression is recessed in the base plate),** the above technical feature of the cited reference bring forth substantially the same technical effect as that of the present invention.

Regarding Claim 3, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the heat exchanger as claimed in claim 1: Fuerschbach et al. '578 further disclose the limitation wherein one edge **(14)** of the outermost heat exchanger plate protrudes over **(Fig. 1: wherein 12 is couple to 46; the flange (14) of 12 will protrude over)** the base plate **(46)**.

Regarding Claim 4, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the heat exchanger as claimed in claim 1, Fuerschbach et al. '578 further

disclose the limitation wherein the depression **(48)** in the base plate **(46)** has a thickness greater **(as depicted in Fig. 1: the thickness of the (46) is a greater)** than a material thickness **(as depicted in Fig. 1: wherein the cross section (20) is a material thickness)** of one of the at least two heat exchanger plates **(12)**.

Regarding Claim 5, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the heat exchanger as claimed in claim 1, Fuerschbach et al. '578 further disclose the limitation wherein the depression **(48)** in the base plate **(46)** has a depth **(as shown in Fig. 1)** at least as great as a material thickness **(as depicted in Fig. 1: wherein the cross section (20) is a material thickness)** of one the heat exchanger plates plus half of a clear height **(as shown in Fig. 1)** between the outermost heat exchanger plate, which bears against the base plate **(46)**, and a second outermost **(12')** heat exchanger plate.

Regarding Claim 6, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the heat exchanger as claimed in claim 1, Fuerschbach et al. '578 further disclose the limitation wherein the depression **(48)** in the base plate **(46)** is at least as deep as a material thickness **(as depicted in Fig. 1: wherein the cross section (20) is a material thickness)** of one of the at least two heat exchanger plates **(12, 12')** of the heat exchanger plus a clear height **(as shown in Fig. 1)** between the outermost heat exchanger plate, which bears against the base plate **(46)**, and a second outermost **(12')** heat exchanger plate.

Regarding Claim 7, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the heat exchanger as claimed in claim 1, Fuerschbach et al. '578 further disclose the limitation wherein the contour **(Fig. 1: wherein 48 is shown with a contour)** in the base plate **(46)** is produced by embossing, casting or machining **(Col 4, lines 29-32)**.

Regarding Claim 8, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the heat exchanger as claimed in claim 1, Kull et al. '219 disclose wherein the base plate has at least one supply opening **(33)** for the heat exchanger medium or the second medium.

Regarding Claim 9, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the use of a heat exchanger as claimed in claim 1, Kull et al. '219 disclose wherein the heat exchanger is a charge-air/coolant cooler **(Col 5, line 16)**.

Regarding Claim 10, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the heat exchanger as claimed in claim 1, Kull et al. '219 disclose wherein the heat exchanger is an oil cooler **(Col 1, lines 7-8)**.

Regarding Claim 11, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the heat exchanger as claimed in claim 1, Kull et al. '219 disclose wherein the heat exchanger is an exhaust gas cooler **(Col 5, lines 16-17)**.

Regarding Claim 12, the combination of Kull et al. '219 and Fuerschbach et al. '578 disclose and teach the heat exchanger as claimed in claim 1, Kull et al. '219 wherein the heat exchanger is an evaporator **(Col 2, line 51, wherein heat exchanger is an evaporator)**.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. (07-40).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMMANUEL DUKE whose telephone number is (571)270-5290. The examiner can normally be reached on Monday - Friday; 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler or Frantz Jules can be reached on 571-272-4834 or 571-272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EMMANUEL DUKE
Examiner
Art Unit 3744
3/23/09

/TU B HOANG/
Supervisory Patent Examiner